**Infrastructure Setup with IaC**

Document Revision History

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| --- | --- | --- | --- |
| Version | Date | Description | Author |
| 1.0 | 30-10-2023 | Initial release | Santosh Kumar Kar |
| 1.1 |  |  |  |

Document Review History

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| --- | --- | --- | --- | --- |
| Version | Reviewer | Review Status | Review Date | Approval Date |
| 1.0 | Suja Anian | Pending |  |  |
| 1.0 | Sankar Rao | Pending |  |  |

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# Objective

We need to setup IaC controller for all the project in NS-Stack

# IaC Tool:

**Pulumi** – Free Subscription

# Planned Activities

1. Identify the initial project in Ns-Stack and understand the architecture.
2. Design the template for the whole application that may include:
   1. i23-Dev-R1-MongoDbServer
   2. i23-Dev-R1-Application - UI - C#
   3. i23-Dev-R1-(New-API)
3. Understand the installation steps for each of the above applications.
4. May need AWS credentials for Mansingh and access to provision the AWS services.
5. Run and Test the IaC code to ensure the infra is provisioned correctly.
6. Implementing Security, multiple instances with Load Balancer.
7. Integrate with Pipeline so it can take the input for configuration and provisioning the infrastructure.

# Dev Environment Setup

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Application** | Type | No. of Instances | LB | Dependent On | Cloud Components |
| i23-Dev-R1-MongoDbServer | DB | 1 | N/A | N/A | t2.micro |
| i23-Dev-R1-(New-API) | NodeJS | 1 | N/A | MongoDbServer | t2.micro |
| i23-Dev-R1-Application | C# | 1 | N/A | API | t2.micro |

# Demo Environment Setup

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Application** | Type | No. of Instances | LB | Dependent On | Cloud Components |
| i23-Dev-R1-MongoDbServer | DB | 1 | N/A | N/A | t2.micro |
| i23-Dev-R1-(New-API) | NodeJS | 1 | N/A | MongoDbServer | t2.micro |
| i23-Dev-R1-Application | C# | 1 | N/A | API | t2.micro |

* + - 1. **Performance Environment Setup**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Application** | Type | No. of Instances | LB | Dependent On | Cloud Components |
| i23-Dev-R1-MongoDbServer | DB | 2 |  | N/A | Will decide |
| i23-Dev-R1-(New-API) | NodeJS | 2 |  | MongoDbServer | Will decide |
| i23-Dev-R1-Application | C# | 2 |  | API | Will decide |

* + - 1. **Prod Environment Setup**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Application** | Type | No. of Instances | LB | Dependent On | Cloud Components |
| i23-Dev-R1-MongoDbServer | DB | 2 |  | N/A | Will decide |
| i23-Dev-R1-(New-API) | NodeJS | 2 |  | MongoDbServer | Will decide |
| i23-Dev-R1-Application | C# | 2 |  | API | Will decide |

**Current Status:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No. | Resource | Activities | Started on | Target End Date |
| 1 | Mansingh | Need to setup Pulumi in VDI |  |  |
| 2 | Mansingh | Started working on provisioning the MongoDB Database | 11 October 2023 | 13 October 2023 |
| 3 | Mansingh |  |  |  |